

## WEST Search History

DATE: Tuesday, June 25, 2002

**Set Name Query**  
side by side

**Hit Count Set Name**  
result set

*DB=USPT; PLUR=YES; OP=ADJ*

L14	above average adj5 common rust	2	L14
L13	L11 and (corn or maize)	8	L13
L12	L11 (corn or maize)	0	L12
L11	above average adj5 northern leaf blight	8	L11
L10	39r62 and (corn or maize)	0	L10
L9	L8 and l6 and l4 and l2	1	L9
L8	L7 and (corn or maize)	222	L8
L7	cob color adj5 red	222	L7
L6	L5 and (corn or maize)	119	L6
L5	glume color adj5 light green	119	L5
L4	L3 and (maize or corn)	21	L4
L3	anther color adj5 purple	30	L3
L2	L1 and (corn or maize)	73	L2
L1	silk color adj5 pink	73	L1

END OF SEARCH HISTORY

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1649axm

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Jun 03	New e-mail delivery for search results now available
NEWS	4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	7	Sep 03	JAPIO has been reloaded and enhanced
NEWS	8	Sep 16	Experimental properties added to the REGISTRY file
NEWS	9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	11	Oct 24	BEILSTEIN adds new search fields
NEWS	12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	13	Nov 18	DKILIT has been renamed APOLLIT
NEWS	14	Nov 25	More calculated properties added to REGISTRY
NEWS	15	Dec 04	CSA files on STN
NEWS	16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	17	Dec 17	TOXCENTER enhanced with additional content
NEWS	18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS	20	Feb 13	CANCERLIT is no longer being updated
NEWS	21	Feb 24	METADEx enhancements
NEWS	22	Feb 24	PCTGEN now available on STN
NEWS	23	Feb 24	TEMA now available on STN
NEWS	24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS	25	Feb 26	PCTFULL now contains images
NEWS	26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS	27	Mar 19	APOLLIT offering free connect time in April 2003
NEWS	28	Mar 20	EVENTLINE will be removed from STN
NEWS	29	Mar 24	PATDPAFULL now available on STN
NEWS	30	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS	31	Apr 11	Display formats in DGENE enhanced
NEWS	32	Apr 14	MEDLINE Reload
NEWS	33	Apr 17	Polymer searching in REGISTRY enhanced
NEWS	34	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS	35	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS	36	Apr 28	RDISCLOSURE now available on STN
NEWS	37	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS EXPRESS			April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information

NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:29:19 ON 13 MAY 2003

=> file agricola biosis  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'AGRICOLA' ENTERED AT 15:29:31 ON 13 MAY 2003

FILE 'BIOSIS' ENTERED AT 15:29:31 ON 13 MAY 2003  
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC. (R)

=> s anther color (10w) purple  
L1 3 ANTHR COLOR (10W) PURPLE

=> dup rem l1  
PROCESSING COMPLETED FOR L1  
L2 2 DUP REM L1 (1 DUPLICATE REMOVED)

=> d 1-2 ti

L2 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI Phenotypic diversity for qualitative and phenologic characters in germplasm collections of tef (Eragrostis tef).

L2 ANSWER 2 OF 2 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 1

TI Sex ratios and inheritance of anther and stigma color in diploid buffalograss.

=> s silk color (10w) poink  
L3 0 SILK COLOR (10W) POINK

=> s silk color (10w) pink  
L4 0 SILK COLOR (10W) PINK

=> s glume color (10w) light green  
L5 0 GLUME COLOR (10W) LIGHT GREEN

=> s yield potential  
L6 2724 YIELD POTENTIAL

=> s l6 and (corn or maize)

L7 320 L6 AND (CORN OR MAIZE)

=> s l7 and test weight

L8 3 L7 AND TEST WEIGHT

=> dup rem l8

PROCESSING COMPLETED FOR L8

L9 2 DUP REM L8 (1 DUPLICATE REMOVED)

=> d 1-2 ti

L9 ANSWER 1 OF 2 AGRICOLA Compiled and distributed by the National  
Agricultural Library of the Department of Agriculture of the United States  
of America. It contains copyrighted materials. All rights reserved.  
(2003) DUPLICATE 1

TI Nitrogen effects on triticale grain yield, amino acid composition, and  
feed nutritional quality for swine.

L9 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

TI CIMMYT's approach to breed for drought tolerance.

=> s l7 and stalk strength

L10 1 L7 AND STALK STRENGTH

=> d ti

L10 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

TI Genetic variation in the feeding efficiency of silage **maize**  
evaluated from experiments with dairy cattle.

=> s l7 and northern leaf blight

L11 0 L7 AND NORTHERN LEAF BLIGHT

=> s l7 and common rust

L12 3 L7 AND COMMON RUST

=> dup rem l12

PROCESSING COMPLETED FOR L12

L13 2 DUP REM L12 (1 DUPLICATE REMOVED)

=> d 1-2 ti

L13 ANSWER 1 OF 2 AGRICOLA Compiled and distributed by the National  
Agricultural Library of the Department of Agriculture of the United States  
of America. It contains copyrighted materials. All rights reserved.  
(2003) DUPLICATE 1

TI Recurrent selection for resistance to *Exserohilum turcicum* in eight  
subtropical **maize** populations.

L13 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

TI EVALUATION OF BASE POPULATION RESISTANCE TO COMMON AND SOUTHERN RUST IN  
**MAIZE**.

=> s l7 and gibberella

L14 2 L7 AND GIBBERELLA

=> dup rem l14

PROCESSING COMPLETED FOR L14

L15 1 DUP REM L14 (1 DUPLICATE REMOVED)

=> d ti

L15 ANSWER 1 OF 1 AGRICOLA Compiled and distributed by the National  
Agricultural Library of the Department of Agriculture of the United States  
of America. It contains copyrighted materials. All rights reserved.  
(2003) DUPLICATE 1  
TI Disease reaction changes from tandem selection for multiple disease  
resistance in two **maize** synthetics.

=> s l7 and eyespot  
L16 2 L7 AND EYESPOT

=> dup rem l16  
PROCESSING COMPLETED FOR L16  
L17 1 DUP REM L16 (1 DUPLICATE REMOVED)

=> d ti

L17 ANSWER 1 OF 1 AGRICOLA Compiled and distributed by the National  
Agricultural Library of the Department of Agriculture of the United States  
of America. It contains copyrighted materials. All rights reserved.  
(2003) DUPLICATE 1  
TI Disease reaction changes from tandem selection for multiple disease  
resistance in two **maize** synthetics.

=> s l7 and early growth  
L18 1 L7 AND EARLY GROWTH

=> d ti

L18 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI RESPONSE OF MUSTARD CULTIVARS TO DATE OF SOWING.

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal649axm

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TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS	3	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS	4	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS	5	Feb 19	Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS	6	Mar 08	Gene Names now available in BIOSIS
NEWS	7	Mar 22	TOXLIT no longer available
NEWS	8	Mar 22	TRCTHERMO no longer available
NEWS	9	Mar 28	US Provisional Priorities searched with P in CA/CAPLUS and USPATFULL
NEWS	10	Mar 28	LIPINSKI/CALC added for property searching in REGISTRY
NEWS	11	Apr 02	PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS	12	Apr 08	"Ask CAS" for self-help around the clock
NEWS	13	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	14	Apr 09	ZDB will be removed from STN
NEWS	15	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS	16	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	17	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	18	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	19	Jun 03	New e-mail delivery for search results now available
NEWS	20	Jun 10	MEDLINE Reload
NEWS	21	Jun 10	PCTFULL has been reloaded
NEWS EXPRESS			February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:14:02 ON 25 JUN 2002

=> file agricola biosis  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'AGRICOLA' ENTERED AT 11:14:10 ON 25 JUN 2002

FILE 'BIOSIS' ENTERED AT 11:14:10 ON 25 JUN 2002  
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=> s anther color (10w) purple  
L1 3 ANTER COLOR (10W) PURPLE

=> dup rem l1  
PROCESSING COMPLETED FOR L1  
L2 2 DUP REM L1 (1 DUPLICATE REMOVED)

=> d 1-2 ti

L2 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Phenotypic diversity for qualitative and phenologic characters in  
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L2 ANSWER 2 OF 2 AGRICOLA DUPLICATE 1  
TI Sex ratios and inheritance of anther and stigma color in diploid  
buffalograss.

=> s silk color (10w) pink  
L3 0 SILK COLOR (10W) PINK

=> s glume color (10w) light green  
L4 0 GLUME COLOR (10W) LIGHT GREEN

=> s yield potential  
L5 2628 YIELD POTENTIAL

=> s l5 and (corn or maize)  
L6 307 L5 AND (CORN OR MAIZE)

=> s l6 and test weight  
L7 3 L6 AND TEST WEIGHT

=> d 1-3 ti

L7 ANSWER 1 OF 3 AGRICOLA  
TI Nitrogen effects on triticales grain yield, amino acid composition, and  
feed nutritional quality for swine.

L7 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Nitrogen effects of triticales grain yield, amino acid composition, and  
feed nutritional quality for swine.

L7 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI CIMMYT's approach to breed for drought tolerance.

=> d 1-3 ab

L7 ANSWER 1 OF 3 AGRICOLA  
AB Nitrogen fertilizer recommendations for triticales (X Triticosecale  
Wittmack) and soft red winter (SRW) wheat (Triticum aestivum L.) in the  
southeastern USA are similar in spite of different end uses. Grain yield,  
protein, and amino acid composition of four triticales cultivars were

evaluated over five N levels ranging from 30 to 150 lb/acre in four Georgia environments. Nitrogen was topdressed as ammonium nitrate at peak tillering. Relative economic value of triticale for feed was calculated assuming total replacement of **corn** (*Zea mays* L.) plus variable amounts of soybean [*Glycine max* (L.) Merr.] meal (SBM) in a standard swine diet formulated to 100% of National Research Council (NRC) lysine requirement at representative prices for **corn** and SBM. Significant grain yield responses to N occurred in three of the four environments. Grain yield was maximized with 90 or 120 lb N/acre depending on environment and cultivar. Yield component responses to N were increased tiller density, decreased seeds per head, and decreased seed weight. Quantity of all amino acids increased linearly with N indicating potential for enhancing nutritional value by increasing N to raise contents of limiting essential amino acids. The superior lysine content of triticale relative to **corn** resulted in a relative cash price for triticale, which averaged 6% higher than **corn** value (range 3% to 10%). Despite N-induced increases in lysine content and relative nutritional value of triticale for feed, marginal return per acre was maximized at N levels associated with maximum grain yield. Cultivars varied for all traits except tiller density. Maximum economic return per acre was obtained with improved cultivars Florico and Florida 201, which had higher **yield potential** and **test weight**, but lower lysine content, than cultivars Beagle 82 and Morrison. Based on our study using 1997 prices, current N recommendations for small grains of 60 to 120 lb N/acre depending on previous crop, are appropriate for triticale. At these N levels, cultivar selection is more important for increasing returns than additional inputs of N.

L7 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AB Nitrogen fertilizer recommendations for triticale (*X Triticosecale* Wittmack) and soft red winter (SRW) wheat (*Triticum aestivum* L.) in the southeastern USA are similar in spite of different end uses. Grain yield, protein, and amino acid composition of four triticale cultivars were evaluated over five N levels ranging from 30 to 150 lb/acre in four Georgia environments. Nitrogen was topdressed as ammonium nitrate at peak tillering. Relative economic value of triticale for feed was calculated assuming total replacement of **corn** (*Zea mays* L.) plus variable amounts of soybean (*Glycine max* (L.) Merr.) meal (SBM) in a standard swine diet formulated to 100% of National Research Council (NRC) lysine requirement at representative prices for **corn** and SBM. Significant grain yield responses to N occurred in three of the four environments. Grain yield was maximized with 90 or 120 lb N/acre depending on environment and cultivar. Yield component responses to N were increased tiller density, decreased seeds per head, and decreased seed weight. Quantity of all amino acids increased linearly with N indicating potential for enhancing nutritional value by increasing N to raise contents of limiting essential amino acids. The superior lysine content of triticale relative to **corn** resulted in a relative cash price for triticale, which averaged 6% higher than **corn** value (range 3% to 10%). Despite N-induced increases in lysine content and relative nutritional value of triticale for feed, marginal return per acre was maximized at N levels associated with maximum grain yield. Cultivars varied for all traits except tiller density. Maximum economic return per acre was obtained with improved cultivars Florico and Florida 201, which had higher **yield potential** and **test weight**, but lower lysine content, than cultivars Beagle 82 and Morrison. Based on our study using 1997 prices, current N recommendations for small grains of 60 to 120 lb N/acre depending on previous crop, are appropriate for triticale. At these N levels, cultivar selection is more important for increasing returns than additional inputs of N.

L7 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AB About 32% of the 99 million ha wheat grown in developing countries experiences varying levels of drought stress. Three major drought types



have been identified: Late drought (LD) is common in the Mediterranean region, early drought (ED) is found in Latin America and wheat is produced on residual soil moisture (RM) in the Indian subcontinent and part of Australia. Until 1983, CIMMYT selected all germplasm under near optimum conditions for its **yield potential** and tested only advanced lines under drought. In spite of many critics, this approach proved to be successful, since in the mid 80's CIMMYT germplasm was grown on 45% of the wheat area in LC with annual rainfall from 300-500 mm and on 21% in areas with less than 300 mm. Since 1983, CIMMYT's drought breeding methodology is to alternate segregating populations between drought stressed and fully irrigated conditions (FI) and to test advanced lines under a line source irrigation system. To compare the efficiency of these approach, yield of four, mostly leading varieties, from each of the regions with LD, ED, RM, and FI and twelve recent CIMMYT cultivars selected for high yield under FI and RM conditions (ALT) were compared under four different moisture regimes (FI, LD, ED, and RM) in 89-90 and 90-91 in Yaqui Valley, Mexico. Genotypic correlation between yield and days to flowering, days to maturity, height, grains m<sup>-2</sup>, TKW, **test weight** and grain fill period were calculated. Mean grain yield of the four best lines in the ALT group was highest under all moisture stress regimes, followed by the FI-group. However, the highest yielding cultivar within each moisture regime was from the FI-group under FI, from the LD-group under LD, and from the ALT-group under ED and RM conditions. Estimates for genetic advance suggest that FI is the best environment for increasing grain yield even in all three drought environments. This indicates that **yield potential** per se is beneficial also in drought environments. The highest yield in drought environments was realized by the CIM cultivars selected under FI and RM. Simultaneous evaluation of the germplasm under near optimum conditions, to utilize high heritabilities and identify lines with high **yield potential**, and under stress conditions to preserve alleles for drought tolerance seem at present the best strategy.

=> d 1-3 so

- L7 ANSWER 1 OF 3 AGRICOLA
- SO Journal of production agriculture, Apr/June 1998. Vol. 11, No. 2. p. 180-184  
 Publisher: [Madison, WI] : American Society of Agronomy, c1987-  
 CODEN: JPRAEN; ISSN: 0890-8524
- L7 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- SO Journal of Production Agriculture, (April-June, 1998) Vol. 11, No. 2, pp. 180-184.  
 ISSN: 0890-8524.
- L7 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- SO Euphytica, (1996) Vol. 92, No. 1-2, pp. 147-153.  
 ISSN: 0014-2336.

=> s 16 and stalk strength

- L8 1 L6 AND STALK STRENGTH

=> d ti

- L8 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Genetic variation in the feeding efficiency of silage **maize** evaluated from experiments with dairy cattle.

=> d ab

L8 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AB Genetic variation in the feeding efficiency of different **maize** genotypes was evaluated from experiments with dairy cows. The **maize** genotypes were chosen according to their variable digestibility range, determined in previous experiments with standard sheep. The variations in milk yield observed with dairy cows fed a low, respectively a high, digestible or energizing hybrid were between 1 to 2.0 kg per animal, per day. Moreover, the differences in body weight gain reached up to 300 g per day. Hybrids having similar energy values acted similarly on milk yield, but the intake could be very different when fed to dairy cows, even if no difference in intake was observed in sheep measurements. The 1.5 kg higher silage **maize** intake of DK265 was mostly converted into a body weight gain, and not in increasing the milk yield, probably because the milk **yield potential** of the animals was soon reached. It appeared that the hybrids which had a low predicted energy value from the sheep measurements also had a lower performance in cows. Dairy cow performances also appeared to concur with the enzymatic solubility values of the whole plant. However, only good hybrids could be distinguish from poor ones, but the variation within good, respectively poor, hybrids could not reliably be investigated with the enzymatic solubility test used. The variation in ingestibility could not be predicted. For **maize** breeders, the prediction of an hybrid efficiency for use in dairy cow rearing must include digestibility and ingestibility factors. Enzymatic processes could probably be used to avoid drift towards poor feeding values with hybrids bred for a higher **stalk strength**. The most important challenge for **maize** breeders will most likely be the determination of a criterium for the intake prediction. The stover digestibility and starch content can be reliably predicted through the use of NIRS (near infra-red reflectance spectroscopy) calibrations. For a stock-breeder, a pertinent choice of a **maize** hybrid might allow significant concentrates and money saving.

=> d so

L8 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
SO Productions Animales (Paris), (1995) Vol. 8, No. 5, pp. 315-320.  
ISSN: 0990-0632.

=> s l6 and northern leaf blight

L9 0 L6 AND NORTHERN LEAF BLIGHT

=> s l6 and common rust

L10 3 L6 AND COMMON RUST

=> dup rem l10

PROCESSING COMPLETED FOR L10

L11 2 DUP REM L10 (1 DUPLICATE REMOVED)

=> d 1-2 ti

L11 ANSWER 1 OF 2 AGRICOLA

DUPLICATE 1

TI Recurrent selection for resistance to *Exserohilum turcicum* in eight subtropical **maize** populations.

L11 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI EVALUATION OF BASE POPULATION RESISTANCE TO COMMON AND SOUTHERN RUST IN **MAIZE**.

=> d 1-2 ab

L11 ANSWER 1 OF 2 AGRICOLA DUPLICATE 1  
 AB There are few reports on the progress achieved through recurrent selection for quantitative resistance to diseases in tropical or subtropical **maize** (*Zea mays* L.) populations. The objective of this study was to evaluate the progress achieved after four cycles of full-sib S1 recurrent selection in eight subtropical populations from the International **Maize** and Wheat Improvement Center (CIMMYT). Selection was primarily for improving polygenic resistance to the northern **corn** leaf blight (NCLB) induced by *Exserohilum turcicum* (Pass.) Leonard & Suggs, and the **common rust** (*Puccinia sorghi* Schw.). Evaluations were made under three environments (high, medium, and no disease pressure) represented by two locations each. A very rapid increase in resistance was obtained for both diseases (19 and 6% cycle-1 for NCLB and rust, respectively) without changing the maturity of the populations or reducing grain **yield potential** as measured by planting under relatively disease-free conditions. Under disease pressure, yield was found to be associated with resistance to NCLB ( $r = 0.52$  ; significant at  $P = 0.01$ ), reduced stalk lodging ( $r = -0.51$  ), and greater number of ears per plant ( $r = 0.60$  ). Results suggest high heritability values for polygenic resistance to NCLB. It was also demonstrated that the full-sib S1 recurrent selection methodology employed was highly effective in achieving the initial breeding objectives in all the populations involved.

L11 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AB Evaluations of 580 S1 families of base populations of resistance to **common rust** (*Puccinia sorghi* Schw.) and southern rust (*P. polysora* Underw.) in **maize** (*Zea mays* L.) were conducted in seedlings in greenhouse experiments. Means and coefficients of variation were 54.9% and 31.4%, respectively, for **common rust** resistance; and 50.0% and 39.0%, respectively, for southern rust resistance. Heritability estimates were 80.4% and 52.2% for common and southern rust resistance, respectively. Resistance to **common rust** was significantly correlated with resistance to southern rust ( $r = 0.3407$ ). This results indicate that S1 progeny recurrent selection could be utilized to maximize progress for increasing common and southern rust resistance and **yield potential**.

=> d 1-2 so

L11 ANSWER 1 OF 2 AGRICOLA DUPLICATE 1  
 SO Crop science, July/Aug 1991. Vol. 31, No. 4. p. 964-971  
 Publisher: Madison, Wis. : Crop Science Society of America.  
 CODEN: CRPSAY; ISSN: 0011-183X

L11 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 SO J AGRIC RES CHINA, (1990) 39 (4), 269-276.  
 CODEN: CHNCDB. ISSN: 0376-477X.

=> s 16 and gibberella

L12 2 L6 AND GIBBERELLA

=> dup rem l12

PROCESSING COMPLETED FOR L12

L13 1 DUP REM L12 (1 DUPLICATE REMOVED)

=> d

L13 ANSWER 1 OF 1 AGRICOLA DUPLICATE 1  
 AN 97:76258 AGRICOLA  
 DN IND20599534  
 TI Disease reaction changes from tandem selection for multiple disease

resistance in two **maize** synthetics.  
 AU Lambert, R.J.; White, D.G.  
 CS University of Illinois, Urbana, IL.  
 AV DNAL (64.8 C883)  
 SO Crop science, Jan/Feb 1997. Vol. 37, No. 1. p. 66-69  
 Publisher: Madison, Wis. : Crop Science Society of America, 1961-  
 CODEN: CRPSAY; ISSN: 0011-183X  
 NTE Includes references  
 CY United States; Wisconsin  
 DT Article  
 FS U.S. Imprints not USDA, Experiment or Extension  
 LA English

=> d ab

L13 ANSWER 1 OF 1 AGRICOLA DUPLICATE 1  
 AB Future **maize** (*Zea mays* L.) productivity increases require breeding materials with high **yield potential** and multiple disease resistance. As part of an integrated program to develop breeding populations with high grain **yield potential** and multiple disease resistance, two **maize** synthetics were reciprocally recurrently selected for yield and mass selected for multiple disease resistance. The objective of this study was to determine selection response of two **maize** synthetics to six cycles of tandem selection for multiple leaf diseases (MLD and multiple stalk rots (MSR)). Plants were inoculated each cycle and evaluated for MLD including their causal agents; northern **corn** leaf blight, (NCLB) [*Exserohilum turcicum* (Pass.) Leonard and Suggs, Races 0 and 1], southern **corn** leaf blight (SCLB) [*Bipolaris maydis* (Nisik) Shoem.], northern **corn** leaf spot (NCLS) [*Bipolaris zeicola* (Stout) Shoem. Races 1, 2, and 3], anthracnose leaf blight [*Colletotrichum graminicola* (CES) G.W. Wils.], and eyespot (*Kabatiella zeae* Narita and Hirzatsuka). Following anthesis, plants were inoculated and evaluated for resistance to MSR including their causal agents; diploidia stalk rot (DSR) [*Stenocarpella maydis* (BERK) Sutton = syn. *Diploidia maydis* (BERK)], anthracnose stalk rot (ASR) [*Colletotrichum graminicola*], **gibberella** stalk rot (GSR) [*Gibberella zeae* (Shw.) Petch.], and fusarium stalk rot [*Fusarium moniliforme*, Shield]. In 1993 and 1994, selection cycles 0, 2, 4, and 6 of synthetics RSSSC, RBS10, and their cycle crosses were evaluated. Selection response to MLD, NCLB, SCLB, NCLS, gray leaf spot (GLS; *Cercospora zeae maydis* Tehon and Daniels), MSR, DSR, GSR, and ASR were measured in separate experiments. Decreases in leaf blight severity from C0 to C6 in RSSSC was 29% for MLD, 23% for NCLB, 33% for SCLB, 28% for NCLS, and 21% for GLS. Decreases for RBS10 were 34% for MLD, 33% for NCLB, 37% for SCLB, 49% for NCLS, and 16% for GLS. Cycle crosses were usually intermediate in values for leaf blight reductions. For stalk rots, the reduction in percentage internode area discolored from C0 to C6 for RSSSC was 44% for MSR, 42% for DSR, 39% for GSR, and 18% for ASR. Reductions for RBS10 were 63% for MSR, 67% for DSR, 64% for GSR, and 63% for ASR. Selection for multiple disease resistance along with a reciprocal recurrent program for yield resulted in significant improvement in resistance to multiple and individual diseases in RSSSC, RBS10, and their crosses.

=> s l6 and eyespot  
 L14 2 L6 AND EYESPOT

=> dup rem l14  
 PROCESSING COMPLETED FOR L14  
 L15 1 DUP REM L14 (1 DUPLICATE REMOVED)

=> d

L15 ANSWER 1 OF 1 AGRICOLA DUPLICATE 1  
 AN 97:76258 AGRICOLA  
 DN IND20599534  
 TI Disease reaction changes from tandem selection for multiple disease resistance in two **maize** synthetics.  
 AU Lambert, R.J.; White, D.G.  
 CS University of Illinois, Urbana, IL.  
 AV DNAL (64.8 C883)  
 SO Crop science, Jan/Feb 1997. Vol. 37, No. 1. p. 66-69  
 Publisher: Madison, Wis. : Crop Science Society of America, 1961-  
 CODEN: CRPSAY; ISSN: 0011-183X  
 NTE Includes references  
 CY United States; Wisconsin  
 DT Article  
 FS U.S. Imprints not USDA, Experiment or Extension  
 LA English

=> d ab

L15 ANSWER 1 OF 1 AGRICOLA DUPLICATE 1  
 AB Future **maize** (*Zea mays* L.) productivity increases require breeding materials with high **yield potential** and multiple disease resistance. As part of an integrated program to develop breeding populations with high grain **yield potential** and multiple disease resistance, two **maize** synthetics were reciprocally recurrently selected for yield and mass selected for multiple disease resistance. The objective of this study was to determine selection response of two **maize** synthetics to six cycles of tandem selection for multiple leaf diseases (MLD and multiple stalk rots (MSR)). Plants were inoculated each cycle and evaluated for MLD including their causal agents; northern **corn** leaf blight, (NCLB) [*Exserohilum turcicum* (Pass.) Leonard and Suggs, Races 0 and 1], southern **corn** leaf blight (SCLB) [*Bipolaris maydis* (Nisik) Shoem.], northern **corn** leaf spot (NCLS) [*Bipolaris zeicola* (Stout) Shoem. Races 1, 2, and 3], anthracnose leaf blight [*Colletotrichum graminicola* (CES) G.W. Wils.], and **eyespot** (*Kabatiella zeae* Narita and Hirzatsuka). Following anthesis, plants were inoculated and evaluated for resistance to MSR including their causal agents; diplodia stalk rot (DSR) [*Stenocarpella maydis* (BERK) Sutton = syn. *Diplodia maydis* (BERK)], anthracnose stalk rot (ASR) (*Colletotrichum graminicola*), gibberella stalk rot (GSR) [*Gibberella zeae* (Shw.) Petch.], and fusarium stalk rot [*Fusarium moniloforme*, Shield]. In 1993 and 1994, selection cycles 0, 2, 4, and 6 of synthetics RSSSC, RBS10, and their cycle crosses were evaluated. Selection response to MLD, NCLB, SCLB, NCLS, gray leaf spot (GLS; *Cercospora zeae maydis* Tehon and Daniels), MSR, DSR, GSR, and ASR were measured in separate experiments. Decreases in leaf blight severity from C0 to C6 in RSSSC was 29% for MLD, 23% for NCLB, 33% for SCLB, 28% for NCLS, and 21% for GLS. Decreases for RBS10 were 34% for MLD, 33% for NCLB, 37% for SCLB, 49% for NCLS, and 16% for GLS. Cycle crosses were usually intermediate in values for leaf blight reductions. For stalk rots, the reduction in percentage internode area discolored from C0 to C6 for RSSSC was 44% for MSR, 42% for DSR, 39% for GSR, and 18% for ASR. Reductions for RBS10 were 63% for MSR, 67% for DSR, 64% for GSR, and 63% for ASR. Selection for multiple disease resistance along with a reciprocal recurrent program for yield resulted in significant improvement in resistance to multiple and individual diseases in RSSSC, RBS10, and their crosses.

=> s 16 and early growth  
 L16 1 L6 AND EARLY GROWTH

=> d

L16 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 1989:510451 BIOSIS  
DN BA88:126594  
TI RESPONSE OF MUSTARD CULTIVARS TO DATE OF SOWING.  
AU SINGH S; NARANG R S  
CS DEP. AGROMETEOROL., PUNJAB AGRIC. UNIV., LUDHIANA-141 004, INDIA.  
SO ANN BIOL (LUDHIANA), (1988) 4 (1-2), 81-86.  
CODEN: ANBIEO. ISSN: 0970-0153.  
FS BA; OLD  
LA English

=> d ab

L16 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AB Field studies were conducted for two years to find out a suitable cultivar of Indian mustard (*Brassica juncea* L.) for late sowing under the rapidly falling temperature of Punjab [India]. The highest seed yields were recorded with cv. RLM 514, a comparatively short statured, early maturing variety. This variety continued to retain its higher yield margin compared with both RLM 198 and RLM 240 up to the sowing date of 2 November. The yield of all the three cultivars, however, was reduced sharply (to almost 9 q/ha) in very late sowing of 17 November probably due to cold season and poor **early growth**. Even then, the **yield potential** of 9 q/ha obtained with such late sowing as 17 November suggests the economic viability of this variety for late sowings. The sowing time of Indian mustard in Punjab is recommended to be extended to mid-November to enable the cultivation of this crop in sequence with the main kharif cereals (rice, **maize**, etc.).

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